UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,077	07/02/2001	Thomas V. Johnson	06502.0323	9092

			EXAMINER
22852	7590	10/06/2004	GODDARD, BRIAN D

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ART UNIT	PAPER NUMBER
2161	

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>11 August 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-56</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-56</u> is/are rejected. .

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>02 July 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This communication is responsive to the Petition under 37 C.F.R. § 1.144 and 37

C.F.R. § 1.181, filed 11 August 2004. Applicants' arguments have been found

persuasive, and the Restriction Requirement has thus been withdrawn. Claims 6-56,

previously withdrawn from consideration, are hereby rejoined. Finality of the previous

Office action is hereby withdrawn, and prosecution is reopened.

2.   Claims 1-56 are pending in this application. Claims 1, 6, 9-11, 14-18, 21, 26, 29,

32-34, 37, 42, 45-47 and 50-54 are independent claims. In the Amendment of 16 March

2004, claim 1 was amended. This action is non-final.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

3.   Claims 1-56 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent No. 5,872,973 to Mitchell et al.

Referring to claim 1, Mitchell discloses a computer-implemented method for

determining a relationship between objects as claimed. See Figures 1-3 and the

corresponding portions of Mitchell's specification for this disclosure. Mitchell teaches "a

computer-implemented method for determining a relationship between objects related to

a common information model [See Figs. 1-3], the objects including at least a first

[Patron Object 102] and second instance [Patron Object 106] and an association [103

('mapper' or 'mapping object')], the method comprising:

creating, for the first instance [e.g. 102], a reverse link [Probe] that defines a

relationship between the first instance and the association [See Figs. 1-2 & Column 8,

lines 10-32]; and

determining a relationship between the first and second instances based on the

reverse link [See Appendix C & Column 14]" as claimed.

Referring to claim 2, Mitchell discloses the method of claim 1, as above, wherein

each association [103] reflects a relationship [See Fig. 1] between a respective

association [association between field elements (e.g. 104 & 107)] and a corresponding

associated object [Patron Object (e.g. 102 & 106)] as claimed.

Referring to claim 3, Mitchell discloses the method of claim 1, as above, wherein

the instance [e.g. 102 or 106] is associated with a first wrapper [EosConnection (See

Column 16, lines 10-26)] defining the reverse link as claimed.

Referring to claim 4, Mitchell discloses the method of claim 1, as above, wherein

the association [103] represents an instance [EosMapFieldToField] of an association

class [EosMapElement class (See Column 20, line 57 et seq.)] and wherein creating the

reverse link [See above] further includes:

defining a pointer [probe by field or path, termed 'connection descriptor'] in a first

table that references a second table [See Column 22, line 60 – Column 23, line 48]; and

defining a pointer ['semantic link'] in the second table ['the table containing the

connection descriptor' (See Column 21, line 34 – Column 23, line 48)] that references

the instance [EosMapFieldToField (e.g. 103)] of the association class [EosMapElement]

as claimed.

Referring to claim 5, Mitchell discloses the method of claim 4, as above, wherein

determining a relationship [See Claim 1 above] includes:

collecting a reference [fRightSide] reflecting a relationship between the

association [103] and the second instance [106] based on the pointer in the second

table [See Column 21, line 34 – Column 23, line 48] as claimed.

Referring to claim 6, Mitchell discloses a method for maintaining reverse links in

an object-oriented environment including class instances and associations as claimed.

See the discussions regarding claims 1-5 above for the details of this disclosure.

Mitchell teaches "a method for maintaining reverse links [probes] in a object-oriented

environment [See Figs. 1-3] including class instances [Patron Objects (e.g. 102, 106)]

and associations [mappers (e.g. 103)], the method comprising:

for each class instance [Patron Object (e.g. 102)] associated with N instances

[EosMapFieldToField objects] of an association class [EosMapElement] that each

references the class instance [mappers whose fLeftSide references the Patron Object

102], wherein N represents an integer value greater than or equal to one [any number of

mappers]:

(i)   creating a first level wrapper table [See Claim 4 above] including a pointer

[probe] to a second level wrapper table ['the table containing the connection descriptor'

(See Column 21, line 34 – Column 23, line 48)] associated with the association class; and

(ii)   creating N [one entry for each mapper object present in the table] pointers ['semantic links'] in the second level wrapper table [See above & Claim 4] that each references an individual instance [EosMapFieldToField (e.g. 103)] of the association class" as claimed.

Referring to claims 7 & 8, Mitchell discloses the method of claim 6, as above, wherein new wrappers and pointers are created for new associations on new class instances as claimed. See the discussions regarding claims 4-6 above, and Column 21, line 34 – Column 23, line 48 of Mitchell's specification for the details of this disclosure.

Claim 9 is rejected on the same basis as claims 6-8 above. See the discussions regarding claims 6-8 and the portions of Mitchell's specification cited therein for the details of this disclosure.

Referring to claim 10, Mitchell discloses the method for maintaining reverse links as claimed. See the discussions regarding claims 6-8 above for the details of this disclosure. Mitchell teaches a method for maintaining reverse links...[See Claim 6 above], the method comprising:

for each class instance associated with N instances of a first association class...[See Claim 6 above], and X instances [e.g. 104, 107] of a second association class [EosFieldElement] that each reference [See Fig. 1] the class instance...[See Claim 6 above]:

(i)   creating a first level wrapper table...[See Claim 6 above and Column 21, line 34 – Column 23, line 48 of Mitchell's specification];

(ii)   creating N pointers...[See Claim 6 above]; and

(iii)   creating X pointers ['Dynamic Binding'], in the second table wrapper table [See Column 21, line 34 – Column 23, line 48] associated with the second association class, that each references an individual instance [e.g. 104, 107] of the second association class [See above] as claimed.

Referring to claim 11, Mitchell discloses the method for performing association traversals as claimed. See Figures 1-3 and the corresponding portions of Mitchell's specification, as well as the discussions regarding claims 1-10 above, for the details of this disclosure. Mitchell teaches a method for performing association traversals...[See Claims 1-6 above] comprising:

receiving an association traversal request [due to update of or modification to a Patron Object] for a class instance [Patron Object (e.g. 102, 106)]; and

performing an association traversal process...[See Claims 1-5 above] as claimed.

Claims 12-13 are rejected on the same basis as claims 4-5 respectively, in light of the basis for claim 11. See the discussions regarding claims 1, 4-5 and 11 above for the details of this disclosure.

Claims 14-20 are rejected on substantially the same basis as one or more of claims 1-11 above, as claims 14-20 repeat limitations of claims 1-11 in various combinations.

Claims 21-28 are rejected on the same basis as claims 1-8 respectively. See the

discussions regarding claims 1-8 above for the details of this disclosure.

Claims 29-33 are rejected on the same basis as claims 11-15 respectively. See

the discussions regarding claims 11-15 above for the details of this disclosure.

Claims 34-36 are rejected on substantially the same basis as one or more of

claims 1-11 above, as claims 34-36 repeat limitations of claims 1-11 in various

combinations.

Claims 37-53 are rejected on the same basis as claims 1-17 respectively. See

the discussions regarding claims 1-17 above for the details of this disclosure.

Claims 54-56 are rejected on the same basis as claims 34-36 respectively. See

the discussions regarding claims 34-36 above for the details of this disclosure.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

U.S. Patent Application Publication No. 2002/0165727 to Greene et al. is

considered particularly pertinent to applicants' claimed invention.

The remaining prior art is considered pertinent to applicants' disclosure, and/or

portions of applicants' claimed invention.

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Brian Goddard whose telephone number is 703-305-

7821 until 21 October 2004, and 571-272-4020 after that date. The examiner can normally be reached on M-F, 9 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436 until 21 October 2004, and 571-272-4023 after that date. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

bdg
29 September 2004

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